Testimony of Dr. Robert P. Kadlec
To the Little Hoover Commission
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Good morning ladies and gentlemen. I am grateful for this opportunity to come before you today to share some of my insights as it relates to the problem of bioterrorism and challenges and a opportunities to prepare for this and other related terrorism and natural events. As part of the opportunity to come here, I am going to spend my time after this testimony meeting with a number of your State Public Health and Emergency Management officials. This Commission's meeting affords me the chance to hear first hand their views and experiences as it relates to California's preparations for terrorism and natural emergencies.

As a physician, practitioner of public health and a former member of the Homeland Security Council that advises the President on these matters for three years, I have had the opportunity to analyze this problem from the medical and public health perspective. I was part of the small group that coordinated the President's Biodefense for the 21st Century Policy that he signed on April 21, 2004. This document in its classified form is designated Homeland Security Policy Direcitve-10 and National Security Policy Directive-33. This designation is significant because it represents only the second joint National Security and Homeland Security directive signed by the President during his tenure. It is unusual because it is over 30 pages long representing its truly comprehensive and global scope.

I have submitted the unclassified version as part of my testimony today. I also have several viewgraphs that will help illustrate the highpoints of this policy and focus in on the relevant aspects to the discussion we are having to day. First of all, this policy recognizes that National Biodefense has to address not only deliberate acts of bioterrorism but accidental and natural events like SARs and Avian Influenza. The medical and public health infrastructure that deals with the routine must also be prepared to deal with the potentially catastrophic.

The President's strategy for biodefense highlights four essential pillars.

- Threat Awareness

- Prevention and Protection
- Surveillance and Detection
- Response and Recovery

This chart arranges these pillars temporally in a fashion that shows the relationship between a possible WMD event. It also highlights the several cross-cutting issues that are organic to all the pillars and frankly enable or potentially disable the effectiveness of each one.

This comprehensive framework was one of the guiding considerations in the drafting of the President's policy. [Chart One: Comprehensive Framework]

Simply put the Threat Awareness pillar represents the role of intelligence and science in determining and forecasting the biological threat. The pillar Prevention and Protection highlight the need to interdict biological attacks before they occur and protecting our Nation's critical infrastructure should something happen.

For the hearing today, I would like to focus on the two last pillars to describe the challenge and opportunities afforded by Surveillance and Detection and Response and Recovery.

For those who don't have familiarity with an epidemic curve, this is what one looks like. What it depicts is a hypothetical release of anthrax spores, in this case 5 kilograms, over a population of several hundred thousand. [Chart Two: Epi Curve Anthrax Release]

Note that the first curve represents the potential number of persons exposed to an aerosolized cloud and the latency between the exposure to the onset of clinical symptoms known as the incubation period. The next two curves represent the occurrence of individuals who would likely develop first vague symptoms of inhalational anthrax and the next indicates the numbers of person infected that could die if either prompt preventive or therapeutic treatment were not instituted. I call these two curves the tsunami.

This particular graph depicts how a bioterrorist event would unfold. It is the basis for approach we took at a National level to construct a strategy and formulate specific supporting policies and programs to support it.

The next chart highlights that given the awareness that a bioterrorist event, in this case an anthrax release has occurred; rapid distribution of antibiotics could significantly limit the numbers of person who would get ill, get ill seriously enough to require hospitalization, and die. Simply stated, Time is of the essence. Recognition, confirmation of an attack and response are time sensitive. Lifes literally hang in the balance every minute and every hour after a confirmed attack. [Chart Three: Anthrax & Survival with Antibiotics]

I would like to show you one additional chart that was created in 1993 as part of a Congressional Office of Technology Assessment study. I would like to highlight it because one of the Al Qaeda conspirators, Moussaoui, who recently pleaded guilty in my town of Alexandria Virginia confessed that he came to the U.S. to learn how to fly a crop duster. This confession was coincidentally disclosed at the same time when the WMD Commission report that examined the intelligence failures in Iraq was released. Their report highlighted the commissioners' opinion that they considered the U.S. lucky for not having experience a large scale bio-attack given Al' Qaeda's intentions and capabilities to conduct one. As the Former Director of Central John Deutch testified before our Subcommittee earlier this month, the threat is real. [Chart Four: OTA Anthrax Attack]

There are several Presidential level initiatives that I would like to briefly mention as they relate to the charts I just showed you
In order to address the threat from catastrophic bioterrorism attacks, the President announced the BioWatch program that I am sure several of you are familiar with. BioWatch is an environmental surveillance program to protect major U.S. metropolitan areas against the threat of a large scale biological attack like the one depicted in this chart. [Chart Five: Presidential Initiatives]

In lieu of BioWatch or some other environmental monitoring system to indicate a biological release has occurred, the next line of defense is the health care practioner and an effective biosurveillance system. Physicians, nurses and physician assistants are the front line responders would see individuals who would likely present to their offices clinics or emergency rooms exhibiting non-specific symptoms of anthrax exposures as many of the postal workers did in 1990. It

would be the astute practioner with a high index of suspicion who would make the diagnosis and set off the alarm bells.

In the perfect world we envisioned from the White House, health care practioners would have two vital tools in their daily practice. One would be the availability of technologies that would permit the near real-time diagnosis of infectious diseases. The second would be sharing that information with other clinicians to create a situational awareness of what others in their area were seeing and diagnosing. This clinical based approach would permit a surveillance system that served clinicians, their patients and the larger public health community. It would also guide the decisions of elected officials and emergency management personnel in the affected region.

We are many years from achieving the diagnostic tools I mentioned; but today, we do have the technology to achieve a level of situational awareness through electronic surveillance systems. The intent of the BioSense program is to enable CDC to assist States with the creation of electronic surveillance systems that would provide early warning as well as situational awareness. According to a recent Trust for America's Health study, three quarters of the States do not have electronic surveillance system. Early, warning, surveillance and detection are the center of gravity of the policy I described. They are not only vital for acts of bioterrorism but acts of Mother Nature like SARS and Avian Influenza where assessing extent are critical.

The next two initiatives I will only mention briefly, they are BioShield, legislation that facilitates medical research for biodefense at the NIH and appropriates $5.6 billion dollars for the purpose of purchasing medical countermeasures over the next 10 years for the Strategic National Stockpile. The Cities Readiness Initiative is designed to assist selected cities in receiving and distributing the National Stockpile. Once a warning or valid detection is made the ability to deliver and distribute antibiotics or administer vaccines is the life saving component of this strategy. It is frequently understated and underestimated but it literally is the means to mitigate an event.

I will close with one final chart that indicates the integration of the several initiatives that I described with the earlier epidemic curve. I would be happy to take any and all questions. [Chart Six: Epi Curve with Presidential Initiatives]